

Oral History Cover Sheet

Name: Harvey Nelson

Date of Interview: May 26, 2006

Location of Interview: Crabclaw Lake, Deer Island, Ontario Canada

Interviewer: John Cornely

Approximate years worked for Fish and Wildlife Service:

INTERVIEW EXCLUSIVE REGARDING NPWRC

Offices and Field Stations Worked:

INTERVIEW EXCLUSIVE REGARDING NPWRC

Positions Held: INTERVIEW EXCLUSIVE REGARDING NPWRC

Most Important Projects:

Northern Prairie Wildlife Research Center development; wetland program expansion; Prairie Pothole studies; wetland ecology; propagation program; land use program; land management program; wetland ecology research program; invertebrate ecology program; mammalian predation on ground-nesting birds program; wildlife disease program; North American Waterfowl Management Plan; water chemistry studies; wetland classification program; predation management; grassland impact studies; breeding ecology; four-square-mile plot sampling; habitat and population evaluation studies; set-aside acres program; 87 farm bill; disease research

Colleagues and Mentors:

Robert Burwell; Dan Janzen; Edward Carlson; Daniel Leedy; Ray Erickson; Jim Patterson; Cecil Williams; Edward [E.G.] Wellein; Robert Stewart, Sr.; Hal Kantrud; Jerry Stoudt; Al Smith; Art Hawkins; Cecil Williams; Forrest Lee; Harvey Miller; Leo Kirsch; John Lokemoen; George Swanson; Alan Sargeant; Raymond Greenwood; Marsha Sovoda; Pat Johnson; Elaine Schatz; Carol Hayes; Gary Pearson; Doug Johnson; Hortin Jensen; Paul Springer; Reid Goforth; Lew Cowardin; Jim Bartonek; Jerry Serie; Dave Sharp; Sue Haseltine; [Dr.] I.G. Bue; Vyto Adomaitis; Jerry Pospichal; Judy Harr; Ray Murdy; Dave Trauger; Steve Wilds; Ken Higgins; Tom Dwyer; Phil Arnold; Mike Johnson;

Carl Madsen; Bob Bromley; Howard Thornsberry; Harrison Clark; Carl Struts

Most Important Issues:

INTERVIEW EXCLUSIVE REGARDING NPWRC

Key Words (Please highlight or circle those described in the interview):

refuges	fisheries	law	ecological serv.	personnel
		enforcement		
realty	director	public affairs	game	contaminants
animal damage	river basins	Regions 1-9__	Patuxent	Federal Aid
international	CITES	habitat	ESA	wilderness
fishing	hunting	birding	boats	aviation
surveys	flyways	waterfowl	potholes	migration
eagles	condors	cranes	pesticides	pelicans
Olaus Murie	Ding Darling	Ira Gabrielson	J. Clark Salyer	Al Day
Rachel Carson	H. Zahniser	Dan Jantzen	J. Gottschalk	J. Gottschalk
Spencer Smith	L. Greenwalt	Bob Jantzen	Frank Dunkle	John Turner
M. Beattie	Aldo Leopold	Stuart Udall	James Watt	Bruce Babbitt
inventions	research	ecosystems	invasive species	reintroductions
red wolves	gray wolves	Mexican wolf	condors	spotted owl

National Heritage Team of the U.S. Fish and Wildlife Service Oral History Program

Narrator/USFW Retiree: Harvey Nelson

Date: May 24, 2006

Interviewed by: John Cornely

I hope we catch a fish!

John Cornely: This is John Cornely, it is the 25th of May, 2006 and I am with Harvey Nelson today at beautiful Crabclaw Lake. We're on Deer Island in Crabclaw Lake, which is part of the Eagle Lake complex in Ontario.

We're going to talk to Harvey today about the early days of Northern Prairie Wildlife Research Center and what led up to the development of the center and how things got started. His recollections of getting the place, getting money for the center, getting it built, hiring staff, and getting it up and running in the first few years.

Harvey Nelson: Well, thank you John. If we have any interruptions it will be because we're going to catch another fish, I hope!

Well, thinking back to the years to the Northern Prairie Wildlife Research Center concept first developed. It sort of grew out of the early Wetlands Preservation Program, the Wetlands Protection Program of the Fish and Wildlife Service in Region 3, that going full board during the late '50s and early '60s.

It became obvious that there were many weaknesses in the support data for expanding that program. There was a lot of discussion among the various states within the Fish and Wildlife Service at that time and with the Canadian Wildlife Service in the Provinces, because the Wetlands Program was being expanded and considered in Canada as related to waterfowl production.

Bob Burwell was the regional director in Region 3 at that time, in the early '60s, and he was the strong promoters of wanting to establish a research center, to begin to answer a lot of questions that had developed and were on the horizon as the wetlands program was expanded.

Dan Janzen, he had previously been a regional director in Region 3, moved into Washington as the director, and he also was very much concerned about the support, the data base support base for the expansion of the wetlands program. Not only in the Prairie Pothole region, but also other parts of the country.

There was a lot of discussion in the early '60s, up to about '63 or so by a great many people that were fairly close to this subject. Ed Carlson, for example, was chief of wildlife research at that time in the Washington office; Dan Leedy was in research; Ray Erickson, that was out at Patuxent for a number of years, was also helping out in the Washington office with the wetlands program.

Among all of these various people and some folks in the Canadian Wildlife Service, particularly like Jim Patterson, the Director General of the Canadian Wildlife Service at that time, and others. The Delta Waterfowl Research Station in Manitoba was very much involved in the same set of problems and questions.

Collectively, they sort of decided in about 1962-63 that there would be a collaborative effort between the Canadian Wildlife Service, to expand their research capabilities in the Prairie Region by establishing or expanding the Migratory Bird Research Center at Saskatoon, Saskatchewan, where they had other office facilities. The U.S. Fish and Wildlife Service then would proceed to establish a comparable research facility somewhere in the prairie region.

I sort of got involved in this in 1962-63, thereabouts. I was in Washington in a senior management committee program at that time and I was assigned to research. Because I'd come out of Region 3 and had been very much involved in this whole idea of establishing a research center, I became further involved in it while I was in there on that assignment.

Out of that sort of grew the idea then that yes indeed, the Service would begin to pursue the budget request for establishing such a center and Bob Burwell particularly, as a regional director, was a strong promoter and the director at that time.

We also had further discussions with people at the Denver Wildlife Research Center that was in operation there at that time. Cecil Williams was the director of that program, a long-time waterfowl professional. He too was very supportive of establishing such a kind of other research center of this nature.

Furthermore, within the Denver Research Center at that time they did have a wetland ecology section that Ed Wellein headed up. They already had some people working in Canada on selected study areas to begin to try to answer some of the questions that existed, mostly in terms of habitat. What kind of nesting habitat was crucial to the prairie nesting ducks; mallards, pintails, Gadwall, wigeon, blue-winged teal, and divers; canvasbacks, redheads, and some scaup.

Everyone was sort of in tune with having to quickly do something to begin to move this whole program forward in a collaborative bases with the Canadian program. At that stage then, they made a decision at a directorate meeting of the Fish and Wildlife Service that they would proceed to develop the program planning necessary for such a physical plan.

At that time, 1963-'64, Bob Burwell in Region 3, he hired [Dr.] I.G. Bue. He was a former director of the North Dakota Game and Fish Department for awhile and had worked in wetland programs and river basins work prior to that. He was hired as a special assistant to the regional director, to help coordinate the whole planning process for the research center.

I was working on the same program from the other end for the Washington staff at that time. Then when I completed my training program and went back to the Minneapolis

area, I stayed in research and helped continue to work with the planning process for the research center.

At that stage there was also the need to quickly build a financial support base and the budget process. Some of the key players at that time, as one would expect, were Senator Milton Young from North Dakota, who was the chairman of the Senate Appropriations Committee at that time. Horton Burdick, representative from North Dakota. Carl Monk from South Dakota. All well known congressional people from the Midwest. They collectively also said that they would support the establishment of a new research center.

So we began to then look for a suitable site, a suitable location. One of the first things we did, of course, was prepare the location, the site requirements criteria for where the center should be and what kind of facilities the center initially would require.

We looked at places like some land that was available at South Dakota State University at Brookings, the same at North Dakota State University at Fargo, and some other sites that the Service already owned. For example, one of the recommendations in the concept stage was that there be a major field facility nearby that would serve as sort of a field testing area for habitat management techniques and other activities, and also for training purposes.

Well, the Service had a large tract of land for big waterfowl production area near Woodworth, North Dakota that was subsequently established as the Woodworth Field Station of the research center. Actually, it was established prior to the selection of a site for the center.

Then, thinking about where the center ought to be located, what are some of the basic requirements we wanted it to be, in a location that was attractive to employees from across the country because we were hiring, we wanted to have good daily air service. We were interested in being in a relatively smaller community rather than a large metropolitan area. We also wanted enough land to eventually build other facilities to hold or to accommodate the waterfowl propagation facility that was going to be needed, other kinds of experimental ponds for working with the food chain for the invertebrate populations and their relationships. We also would need a major maintenance facility for the whole program.

So as we begin to look at all of these requirements, we sort of quickly determined that the Brookings site was relatively small and would not allow unless we went out into the country someplace nearby. The same was true at North Dakota State University. But because we already had the Woodworth Station near Jamestown, North Dakota, we zeroed in on Jamestown. There was a large tract of land available just outside, just south-southeast of the city. After exploring that further, it became quite apparent that Jamestown as a city was relatively small, but yet it met all of the other requirements. It had a small college, it should be attractive to people, to employees at that time as we thought.

So, to make a long story short, they wound up selecting the Jamestown site. That's where the main research facility was subsequently built, it was close by, 40 miles from the Woodworth Field Station. So that all sort of tied together and we began to move forward in that basis.

We completed a development proposal and then subsequent development plan for the physical facility at Jamestown and went forward with that. The Minneapolis Region 3 engineering office then did the final architectural planning work that was needed and assigned engineers to the project.

In relatively short order, once money became available in 1963 and '64, from that point on, the development of the new research center was underway.

Then became the problem of what to call it. Because of its relative importance in relationship to the Wetlands Program, we wound up calling it the Northern Prairie Wildlife Research Center. The name which it still retains today with some modification over the years.

So then we began to address the problem of the organizational structure, the kind of staff, the kind of program that would ultimately be conducted out of there. Recognizing that a lot of the field work would continue to take place across the country, wherever needed, particularly in the prairie region of U.S. and Canada, and in cooperation with the Canadian people.

So, as we began to look at that then, the first step was to see what components of existing research that were going on in others parts of the country or directed from somewhere else, to bring that together at Jamestown.

One of the first things they did was reassign Bob Stewart, Sr., who was a wetland ecologist at Patuxent Research Center in Maryland, assigned him to Jamestown to become the primary wetland ecologist for the research center. So he moved out there fairly early on, right off of the center was authorized in 1963, maybe early '64, and began to develop a new field program and hired seasonal assistants and all of that. People like Hal Kantrud, for example, who spent his career at the center. He started right there with Bob Stewart, Sr. There were other people that worked out of the Denver Wetland Ecology section, that was directed by Ed Wellein at that time. Jerry Stoudt, for example, at Aberdeen, South Dakota, he worked on the study area in Manitoba and in Saskatchewan.

We decided it would be best to transfer that whole wetland ecology section from Denver to Jamestown. With that then came Jerry Stoudt with his work in Canada, Ed Wellein for a short time, but then he stayed in Denver and then worked with other parts of the program until he retired there. Al Smith was another person that was working on the waterfowl study areas in Alberta, and he was transferred over and continued his work in Alberta until he subsequently retired. Jerry Stoudt had the rivers area in Saskatchewan and also did some work with Art Hawkins and others on the Minnedosa Project in Manitoba.

That is sort of how the thing began to eventually come together. By taking the rights bits and pieces from other parts of the country that were within the Service at that time, bring it all back together under Jamestown, direct their new efforts at the primary research needs in the prairie region. We had a lot of help from the Cecil Williams, the director at the Denver Center at that time, he fully supported that.

Also, at that time there was a wildlife disease research group stationed at the Bear River [Migratory Bird] Refuge in Utah. That unit was transferred over to Northern Prairie, because we did have a wildlife disease component, primarily migratory bird disease component, plugged into the organizational structure of the Northern Prairie as it was up and running. We began then with an active wildlife disease group from the Bear River group.

That's just some history as to how bits and pieces entered into the planning process. Of course all of this was developed in close coordination with the North Central States, with the director of the Fish and Wildlife Service, the International Association of Fish and Wildlife Agencies, and with the Canadian Provincial, Federal-Provincial Wildlife Organization. So, a good coordination between both countries and the states and provinces as this developed..

Then became the next major step then, of course, was to think about further organizational structure and the primary purposes of that center and how you build an organizational structure around the research needs, so to speak. We also realized that we had to develop both a short-term and a long-term research program.

Short-term to answer some immediate questions and begin to show some results. It wasn't difficult to quickly identify some of the major needs that were on the front burner, in terms of helping accommodate the wetlands program and helping the field biologists at state levels and elsewhere begin to have better and new information about the breeding ecology of prairie waterfowl and the specific habitats they needed. Particularly, the tract size; how big blocks of habitat were really needed to maximize duck production in the prairies, and how to tie all of this to other land use programs, to the agricultural program.

That is sort of how the thinking developed as the concept moved forward and eventually a final research program grew out of all of this.

The primary elements of the initial wetland research program were waterfowl breeding ecology, wetland habitat ecology, land use relationships, including relationships to the private sector and the agricultural programs. Then some basic support groups, like water chemistry for example, very little is known about the hydrology of Prairie Potholes. As a result, the U.S. Geological Survey out of Denver quickly assigned two specialists to that particular part of the program. They conducted a research in central North Dakota on selected waterfowl production areas for, oh, maybe 15 years, and got some really good information to better understand the hydrology of the Prairie Pothole system.

We needed to support a program for waterfowl production, or waterfowl propagation; raising birds for research purposes. Then we needed to identify the kinds of field testing,

the kinds of new techniques that needed to be field tested before put in operation at the field level with refuges and wetland managers and whatever, and then how this might best be done at the Woodworth Station initially. So that came into the forefront.

Then we also had to develop a strong relationship with the nearby colleges and universities since they provided a lot of the personnel coming out of the Fish and Wildlife training programs at that stage and were good sources of personnel for us. But we also set up a linkage, so to speak, to some of the principal universities across the country that were well known, had well known Fish and Wildlife programs, particularly in waterfowl wetlands and migratory birds.

To continue then, I talked quite a bit about some of the historical background and how all of the research needs and existing facilities throughout the Service and elsewhere were brought together to begin to build the Jamestown Program. Then we began to develop the structure that was needed at that particular time to launch the initial research program.

Even though I'd been working with the program in the planning stage for research, it was sometime in 1963, just early '64, that I was asked to consider being the first director of the Northern Prairie Wildlife Research Center, which I gladly did since I'd been so involved with it already. At that stage, I.G. Bue, who had also been hired by the Service to assist with the planning effort, he would become the deputy director of the Center. Then we would establish the major sections of the organization to deal with the various activities that I mentioned, like waterfowl bird ecology, wetland ecology, land use relationships, the water chemistry, and other support features such as dealing with invertebrate populations and waterfowl propagation to provide research birds for research purposes.

So, with that in mind, then as I became the official director, I set forth then to begin to not only develop the organizational structure but find the key people to lead that program, and it was a good time to be doing that.

Those years were really good years in terms of money becoming available and since the facility became located in North Dakota, we had strong support from Senator Milton Young in terms of new appropriations supported by Horton Burdick, the chief representative from North Dakota and the key senators and representatives from surrounding states, including Carl Monk from South Dakota. You couldn't have asked for a better group of important congressional people dealing with budget issues, to help get the initial money for the Center, and that came through very quickly. I think the first two budget cycles were like something like a million and a half dollars and then more the second year, but initially it was for the initial construction.

Because we already had the Woodworth Stations selected and had some buildings on it, they built the first set of physical plant activities, or structures there. They built an office with laboratory facilities, maintenance facilities, and there was a residence for the resident manager there.

Then at Jamestown the initial construction there was to build the primary research center building, so to speak, the office space and the laboratory space. That was also supported by a sort of greenhouse facility at that time.

Because that was the primary center activity for the whole research program, we also needed a major maintenance facility, because we anticipated having quite a number of folks in the field that would require vehicles and other equipment for their field program. So the major maintenance facility was a part of the initial construction.

Later on in the next cycle, the next budget cycle, we planned for a propagation building in another location on that site. Those kind of things continued and have been modified or expanded since, depending on the need.

Then we set about to determine who were some of the best people in the U.S. to lead some of these research activities for the major sections that we established in the organization.

Now we already had at that time, as I mentioned, guys like Jerry Stoudt and Al Smith working in the Canadian prairies. They were based in other towns, because we also had to sort of redesign the program so that during the winter months, when they were not in the field, they could be useful to conduct other research activities for the center.

Key people like Bob Stewart, that had come there a few years ahead of time then, and Hal Kantrud and others, they began to be the backbone of the wetland ecology group as it grew.

I recruited Forrest Lee from Minnesota Department of Conservation, he was their chief waterfowl biologist, but he also a propagation specialist. We brought him to Northern Prairie to head up the waterfowl propagation section of the program at that time.

Harvey Miller had worked in the Fish and Wildlife Refuges and was a regional biologist, originally came out of Soil Conservation Services as a biologist. We got Harvey to come into the Northern Prairie Research Center program to head up the land use section, because he was very knowledgeable in the Farm Program of the USDA Department of Agriculture Relationships, and how to apply proper land use practices that are beneficial to ground nesting birds, for example, waterfowl in particular.

Leo Kirsch had come up through the ranks at the state level. Initially, he was a pheasant biologist for South Dakota and then began work on waterfowl and served as a regional waterfowl biologist for a short time. We brought him into the Northern Prairie program to be the field director of the Woodworth Station, working with Harvey Miller.

We brought some new people like John Lokemoen. He had just come out of the University of Wisconsin and was working at the regional office in Minneapolis, an excellent research person. We brought him in there to also work on some of the land management techniques, that type of thing, wetland ecology aspects too.

We hired Lew Cowardin, he had just finished his PhD at Yale I believe, and he was in New York at the time. I had some major professors that knew him contact me to say, "Here, you want to look at this guys, he is an outstanding person who would be good for your new research program." We hired him and it turned out he spent the rest of his career there and did some an outstanding research in wetland ecology.

We had a new water chemistry lab coming up and we transferred Vyto Adomaitis from the Patuxent Wildlife Research Center, Vyto had worked in water chemistry and other related aspects of the pesticides program. It was easy for him to shift gears and come to Northern Prairie and set up the water chemistry lab in conjunction with the U.S. Geological Survey.

As we moved on that first year, we needed to learn more about invertebrate populations and how you might manage wetlands or marshlands better, to increase the invertebrate production, the food production from those species. One person that had worked in that area was George Swanson as a fisheries biologist in Minnesota, but he had a good background in invertebrate ecology. So George came to Northern Prairie; another good example of an outstanding person who spent his whole career there and working in this effort.

We hired some other people --- Al Sargeant; we needed someone to be the principal leader to do the additional research in this whole are of impact of mammalian predation on ground-nesting birds, and he had worked in that at the University of Minnesota and with the Fish and Wildlife Service for a short term. We brought Al Sargeant to Northern Prairie to head up the so called new section that dealt with the impact of predation. And again, spent much of his career working on that particular aspect and his publications show the results of the good work and he and other guys like Ray Greenwood did; Marsha Sovoda, in more recent years, all part of that original group.

Then we needed an administrative staff to begin to provide the support base for all the new people coming in, and we hired Judy Harr, for example. She was one of the first secretaries that came to Northern Prairie, and I believe is probably one of the last remaining people still there from the original group, who is going to be retiring this year I believe. But other ladies that were very influential early on; Pat Johnson was the secretary to my office and other offices and was there for many years. Elaine Schatz, who is now in Bismarck, but she was involved with that. Carol Hayes was the administrative office there for quite a number of years, recently retired.

Those ladies dedicated a major part of their lives, their career, to helping the center get underway and helped conduct business there for many years.

Then, as we transferred the wildlife disease group from Bear River to Northern Prairie, we needed somebody to be in charge of the new wildlife disease program that was related primarily to waterfowl and other migratory birds. I hired Gary Pearson, who was a veterinarian and wildlife disease specialist from the University of Wisconsin. Gary came there to be the leader of that group, and then stayed there for quite a number of years, until he left to go into private practice.

After about the first year or so it was apparent that we needed a good strong biometrician to assist the biologists in analyzing their good work. We were able to hire Doug Johnson, he was at the University of Wisconsin, and came to Northern Prairie. Again, an outstanding individual, his publications reflect that, his relationships with a lot of organizations reflect that. He is still working, by the way, now at the University of Minnesota for their research center.

Again, so many of those folks, if you look at the years involved, either have retired or about to retire. They spent much of their careers there.

Those are just some of the sidelines that we went through. I think we were very fortunate back in those days to be able to attract and hire exceptional researchers to the new program. Their accomplishments, I think, reflect that, both in terms of their publications and the statute they developed within the scientific community.

Of course, at the same time, we were still proceeding to coordinate all of our activities with the new program in Canada, with the Canadian Wildlife Service. Jim Patterson became the director of the new Migratory Bird Research Center at Saskatoon, Saskatchewan. Jim later moved on to do other things and I continued to be one of his close coworkers in the North American Waterfowl Plan later. But a number of universities.

Then, of course, we also had to maintain a very close relationship with the newly established migratory bird office of the Fish and Wildlife Service. Partly located at Patuxent and the management part in the Washington office, that subsequently transitioned to the regional offices too, in terms of regional migratory bird folks. Now that's all parts of a different organizational structure, but it was important to research at that point.

We also had some of those people stationed at the center. For example, Jerry Pospichal was a pilot biologist for that office, and he was located right at the research center because he'd been in Jamestown, and they continued to do some of those same kinds of things. Horton Jensen, that was in Brigham City, Utah, was a long-time old-timer flyway biologist, he didn't come to Jamestown, but did a lot of cooperative work with Jamestown in terms of survey techniques and all that type of thing, until he retired.

So again, I say I, --- we, were very fortunate to be able to build an initial staff of very capable people that became well recognized in the scientific community. So I think that was a plus.

I look back at all of this and not only were we fortunate, it was a good time in terms of the needs was there, the programs were there that needed this kind of assistance. Eventually, as the program expanded, it began to provide a similar information, research information base for the National Wildlife Refuge System, particularly in the north-central states, but also other places.

It's a good example, nobody gets these kind of things done without the best people in the world around you, and I consider myself very fortunate in that respect. Looking back, I always considered my years... I spent 10 years at Northern Prairie, after we got things organized in '63 and '64, my family moved to Jamestown in 1965. The Center was dedicated in September of 1965, which was a big event in North Dakota, as a matter of fact in the north-central states in that time. Stanley Cain was the Assistant Secretary of the Interior, and he and other dignitaries came to the dedication. We had all of the usual politicians and university folks and state directors and the collection of very influential people at that time that were very supportive in establishing the new research center.

Those were good experiences and I look back at that as one of the more interesting things and challenging things I had to do with my career in the Fish and Wildlife Service. I always considered planning and developing organizing the research program and directing for the first ten years probably was the biggest challenge in my career. Second only to the North American Waterfowl Management Plan, and that's another story!

John Cornely: Paul Harvey it is very interesting. It's remarkable how the time was right and the money became available through the congressional context. Because as we sit here today, not even having a research arm in the Fish and Wildlife Service, it's almost impossible to contemplate how one could have all the stars lined up, so to speak, and have all these things come together.

You got people, you went out after the best people you could and you got them from everywhere. From universities, from states, you got them from refuges, and ES [Ecological Services] in the Fish and Wildlife Service, research in the Fish and Wildlife Service. I think that's always the right approach, to try and get the best people and attract them.

I wonder if you would comment a little bit, I know you were still closely associated after your ten years. Talk a little bit about maybe a few of the next wave of folks that came just before you moved on and other folks at the center as things developed and headed towards the second decade.

Paul Harvey: I have to think back a little bit in terms of time and who was there. I should have mentioned as I was speaking earlier, as we started that program and I became the director and I.G. Bue was going to be the deputy director, unfortunately I.G. Bue died that first fall. He had a heart attack in a goose hunting blind on Horsehead Lake in North Dakota.

So, all of the sudden we were without a full-fledged deputy, although we really hadn't moved into the official quarter, so to speak, in terms of how the office would be running and that type of thing.

But because of his death, Paul Springer then came to the center as my first deputy director for the research program. Paul had been in a cooperative wildlife research program. He was in the South Dakota at the time, so it was easy for him to come to Jamestown. Paul

spent a number of years there with us and then he went back into research, into the cooperative wildlife research unit program and went to California.

John Cornely: That's where he and Forrest Lee got together. I know they worked for many, many years on the Aleutian Canada Geese.

Paul Harvey: That's true. And then when Paul left, Reid Goforth came from the University of Missouri. He was with the coop unit program at the University of Missouri. Reid then came to Jamestown as the deputy director, and he was there after I left and then became the director. Of course, since then there's been a series of directors and deputy directors that have come and gone and the program grew and changed over time. That's what I meant when I said we had to develop early on a short-term program and a long-term program. Most research tends to be long-term to be productive and effective.

But we had an opportunity to also do some important short-term research in terms of quickly identifying some key issues that needed attention right away. Like we needed to have a new or better wetland classification program. And that is one of the first things that Lew Cowardin and his people were assigned to when they came. Within a period of three to four year, four or five years at the most, Lou and his group did develop a better or new wetland classification program at that time, which was very useful. Of course, that's since been superseded something even more refined.

We had to get a better handle on this whole predation question. Within five years Al Sargent and his group were able to put together some of the most salient points about what species of mammalian predators that are in the prairie landscape are the most defer, do the most damage, and how do you deal with them and how do you manage it. It turns out that there's a lot more to predation than just the critters involved --- it deals with the landscape, the social aspects, the whole Bueiness. You had to tie all of that together in terms of what can you really do to manage effectively mammalian populations that are doing damage to ground-nesting birds, waterfowl and other ground-nesting birds. But they did that. So it became fairly clearly understood what this was all about.

One interesting thing they did, they made a direct departure from predator control to predation management. Where you take into consideration all of the things that affect predation and its impact on ground-nesting birds, habitats equally important.

So those are just some of the examples.

Of course after I left and then Reid Goforth was there [I've got stop and think who succeeded who. I guess that's not so important, at this stage you can prepare a list of all of that]. After ten years we had an opportunity to look at some of the key issues, the whole question about hydrology of Prairie Potholes was generally identified in the system, which better understood and it had a direct bearing on how future acquisition of wetlands and the management of these areas might be changed. Of course out of that also grew the whole concept of managing larger blocks of grasslands.

One thing that came up very early on in the wetland ecology section was the significance of grasslands and the impact on wetlands. Nobody had really thought much about that into Bob Stewart and Lew Cowardin and others said, "Hey, you've got to look at these things together, you can't deal with wetlands if you don't adequate protection around them." Those are just some of the easy examples.

But then in the longer term, the breeding ecology of pintails or the breeding ecology of scaup or whatever species you want to look at, but those were some of the key ones at that time. Then, as the migratory bird office and the regulatory part of the Fish and Wildlife Service begin to enter into more direct regulatory input for the public and the states and the Service Regulations Committee that was subsequently established to deal with all of that, like the early concern was that at that stage the waterfowl biologists across the country knew a lot about mallards, but less and less about other species. So they had to very quickly try to fill the gaps in terms of the breeding ecology of some of the other species. That took longer, and some of them is still being worked on.

If I had a list of all of the names of all of these peoples, I could give them to you but I hesitate to mention some and not others. But I could sure supplement what I've said just by some list of the names of Northern Prairie folks for each subsequent ten year period or however long one wants to look at it, right up through today. That program has changed a lot over the years, depending upon the needs and of course when research was transferred from the Fish and Wildlife Service to U.S. Geological Survey.

That was a major hurdle for people to overcome and it also involved some changes in philosophy and the research approaches, some of that is still going on. In some cases, I think Northern Prairie has sort of redirected its efforts back towards migratory birds again, now more than then they have for several years in the past. But the tendency is under new direction, unrelated to the Fish and Wildlife Service program directly, they tend to deviate off into other thing that are of interest to that particular part of a new organization, and I don't know what the answer is. My hope is that some of the research will be put back into the Fish and Wildlife Service, where I think it belongs.

John Cornely: Well, I was going to ask you about that Harvey, because a lot of us that didn't really understand, nor necessarily agree with taking not only from the Fish and Wildlife Service, but research from all interior agencies, basically, was placed with U.S.G.S. You're not the only one that I've heard that would like to see, in some way shape or form, a new, whether it's someway to transfer back parts of whatever from U.S.G.S., or start some new efforts.

One of the things that is pretty interesting, I think, and one of the things that I've been involved with for quite a few years that really was facilitated by Northern Prairie, was the basis of landscape level monitoring and management in the Prairie Pothole region, which was built on things developed by Lew Cowardin, the process they called four-square-mile plot sampling program and by Doug Johnson various mallard-model components.

We now have office in two regions, Region 3 and Region 6, that we call the habitat and population evaluation teams that are based on techniques developed at Northern Prairie.

The big difference that we have in that country, being able to evaluate the North American Waterfowl Management Plan projects is the 40-plus years of waterfowl and waterfowl habitat data that was developed by Northern Prairie to form the basic structure of all of that stuff.

Later on in your role as the first executive director of the North American Waterfowl Management Plan, do you have some observation on how some of the, not just your tenure, but I mean all of the work done at Northern Prairie helped provide a foundation for a lot of the North American plan stuff?

Harvey Nelson: Looking back, I can certainly reflect on some of what you said and some of it very personally. There is no question that the whole aspect of landscape approach to migratory bird habitat sort of had its origin there, like the people that you mentioned, Lew Cowardin, Bob Stewart, others.

I think the important thing there is it brought back into the equation the significance of grasslands, the significance of good agriculture, what goes on within a much larger block of habitat than just a single waterfowl production area of 80 acres or a half a section at the most maybe, or a national wildlife refuge as just one piece of the total picture that you are looking at.

That same concept, of course, was important in the Canadian prairies and is still being looked at and expanded.

I think the important thing is that those kinds of information early on were very influential in providing good solid information for developing and getting approval of the various farm bills. Starting with the Set-Aside Acres program that was in place when we were in Jamestown in the early years right up through today, in terms of the reauthorization of the 87 Farm Bill. Some of those same kinds of concerns, the information is there and it's well-documented. There is no question about the significance of the valuable impact these programs can have on private lands, and the importance of trying to put together larger blocks of habitat rather than small units that become fragmented.

Those, I think, were some good examples.

In looking back, some of the other field work that was done early on, in terms of how pairs, waterfowl breeding pairs, what their spatial requirements are, and how they relate to certain habitat-types, certain wetland-types --- the minute the snow leaves, right up until the broods are off.

It was easy to establish the relative importance of these various wetland types, which had a strong influence, I think, on how the wetland significance increased in recognition in the farm programs, and the willingness of the Department of Agriculture and the public at large to insist on more money being put into wetland protection, restoration and management.

Those are all early Northern Prairie contributions, as you indicated.

Looking at all of the pieces of the puzzle, as I mentioned, I'm thoroughly convinced we still need to somehow get a strong research arm back in the Fish and Wildlife Service. I don't really care if U.S.G.S. can provide that kind of service, somebody has to define, I think, what we need to and how we get it. It's going to be how the value of that kind of research is going to be used in its importance.

Right now I see things slipping because we don't have that. Somewhere under the new leadership of the Service now or in the future, someone needs to continually point at the need and how to improve that. The deficiencies that are there now as we see them, and how we do improve it.

I think it's important to the Refuge System as the Refuge System gets larger. All of this information was extremely valuable in launching the North American Waterfowl Management Plan, and it's important today in terms of how you apply the landscape concept to larger units of habitat and its value. A lot of things came out of that, but we've got to keep on applying it.

John Cornely: Think back a little bit --- I'm just assuming, but because you got all of these really good people together, and they were in a community, a small town. Jamestown is what at its largest maybe?

Harvey Nelson: At 20,000 - 25,000.

John Cornely: Yep, a small prairie town. My guess is that these folks spent a lot of time sitting around and talking to each other. They all had a little different specialties, different experiences. I'm guessing that some really good ideas were hatched just because you had all of these people gathered together with different specialties. That there was some synergy there that really helped develop some of the ideas and the research subsequently after those folks got together.

Harvey Nelson: Well, you're so right. I think back, some of our early staff meetings --- heck, we'd been in existence for about a year and we had most of these people on board, in their assignments in the field, wherever. We used to hold a monthly staff meeting, so to speak, and I used to come out of those meetings thinking that, "Gee, this is just like another big symposium," because there was a fair exchange of ideas, you know, agreement and disagreement. But that was good, because it helped resolve a lot of differences and injected new thoughts and new enthusiasm, new emphasis. It was a community of our own researchers in a sense.

The other thing that I saw happen is that, in the time that I lived in Jamestown, and I got to know all of the major city fathers very well, the people were very suspicious about all of these researchers coming into a small community of 20,000 - 25,000 at most. But the more they were there, the longer they were there, and then more of the people at the research center became involved with the community, the more faith, the more interest and more faith they developed in this group of people. Once in a while you would have a person, staff person that didn't fit that particular concept or wasn't comfortable with that

or running into some problem or something, you would have a little backlash once in awhile. But over the years, I think the research center has brought some outstanding in a relatively small community, that have had a strong influence on that city and the surrounding area, the rural areas as well. People get to know just a lot about each other. Jamestown, I think, benefited greatly by having this group of people there, then and now. They have a small college, Jamestown College, some with the same kind of relationship.

John Cornely: One other thing that we haven't touched on, Harvey, that as I've now been in the Fish and Wildlife Service 26-27 years, and especially with the Migratory Bird Program, you get to know people all over the country and in the Fish and Wildlife Service. Tell us about the role of Northern Prairie in training new young waterfowl biologists. It's remarkable as you go around the countryside, not just in the Fish and Wildlife Service, but other agencies. We were at a D.O.D. [Department of Defense], we taught a Migratory Bird Treaty Act course to a Department of Defense and somebody came up to Dave Sharp and said, "I know you from Northern Prairie" or something like that. It happens all of the time. So it must have been a major training area for like your temporaries, went on to school and became professional biologists.

Harvey Nelson: That's certainly another important to mention in the program, and it started early on. For example, Jim Bartonek was a graduate student out of the University of Wisconsin, working out of Delta, at the Delta Waterfowl Research Station when I first encountered him. He was very interested in continuing to do the kind of work he was doing. It turned out that Northern Prairie was probably the most attractive place for him to go, and we found a place for him. Jim spent his early years at Northern Prairie Wildlife Research Center, went on to become the Pacific Flyway representative for the Waterfowl Program.

The same thing is true for Jerry Serie, in a similar capacity in the Atlantic Flyway, and now Dave Sharp in the Central Flyway. So, you're so right.

As you look around, just many, many people that came through the Northern Prairie system, either as full-time employees, researchers on staff at the center, or as graduate students or temporary students or field employees. That were there for one or two years and were encouraged to continue their education somewhere and finish at least their masters program. Today you see them in responsible positions in state game and fish departments all across the country. I still go to meetings and have people come up and say, "I never knew you at Northern Prairie, but I was there." So, you're so right.

John Cornely: One question that I'm interested in your response to, it goes back to this issue of whether research should be in the Fish and Wildlife Service or not [by the way, a vole just ran across the island here. It's nice to do these interviews out in the great outdoors, and it looked like a red-backed vole to me.] One of the reasons given to put research in U.S.G.S. was to make it unbiased. Apparently, someone felt, and maybe you know more about this than I do, that agency researchers in a given agency may not look at things as objectively. I never found that to be true at Northern Prairie or anyplace else. Can you shed any light on that or what your thoughts are Harvey?

Harvey Nelson: I know that's a common concern in the research communities, probably more so among groups that are dealing very specifically at fairly high level intensive research on given subjects. Like whether it's water quality in the medical field or some other field. Maybe there is some reason to be concerned about that, but in the Fish and Wildlife arena I've never really seen that or encountered any situations where I saw that to be a real problem. But I think that's more related to the direction that the program is given. How the mission of a given research center or research unit is defined and agreement is reached as to what they expect from that group and then provide that group with the proper people and adequate funding to complete the assignments that they are given. I think if that's done properly, I'm convinced you get better research results in the final analysis, because people work as a team and they aren't competing directly for other recognition or other dollars or whatever. It's a matter of organization and leadership.

John Cornely: One other thing that was new to me that you mentioned was having a section to deal with migratory bird diseases at Northern Prairie. Did that pre-date the development of the National Wildlife Health Lab, now the Wildlife Research Center. If so, did some of that transfer eventually from Northern Prairie to Madison?

Harvey Nelson: At the time Northern Prairie Research Center was established, the Madison disease research facility was being considered, but hadn't been established. We still had the Bear River Wildlife Disease group, which largely dealt with botulism and other major waterfowl die-offs, and it also dealt with some disease problems in the western part of the country rather than the prairies.

We wanted to re-establish a disease research group that could concentrate on problems in the prairies. So that is the way it started, and then it began then by transferring the Bear River, it was a largely botulism research group for the most part, transferring that to Northern Prairie to get that functional and continue what they were doing and make it a part of the program. But over time, as the wildlife disease research facility that was established at Madison, Wisconsin, as that program came into being and other people in wildlife disease research were transferred there, then the emphasis on disease research at Northern Prairie declined. We still kept initially some capability there because there was a need for that, but then as the Madison research group increased in scope, we were able to get those services from them. Today, I don't believe there's a disease facility or group at Northern Prairie anymore.

Well John, I would just like to say in closing that again, I consider myself very fortunate to have had the experience in the early stages of developing the Northern Prairie Wildlife Research Center concepts and eventually programs and eventually to manage and direct such a group. Again, as I said in the past, I consider myself very fortunate to have been surrounded by such a good group of people that quickly learned how to get things done. It's not to say there weren't problems, especially to have that many organizations, but basically we began to accomplish very quickly what we set out to do. I've been forever grateful for that and very thankful for those early staff members that were involved with that. Over the years, I've kept in fairly close contact with the center in terms of the kinds of work they're doing and the new people that come and go, but I've got to stop and think in terms of exactly beyond the days that I was there, there's been a lot of new people

through that program and a lot of good people through that program. For example, people like Sue Haseltine, who was the director of Northern Prairie and has now moved on as one of the principle directors of research in the U.S. Geological Survey. Obviously, she should be very close to the Northern Prairie program and the Waterfowl and the Prairie Pothole program and all of that kind of thing. I don't know if she has other responsibilities as well, but there I think a classic example of how people have moved on through the ranks. As I moved on into other positions in the Service, my experience there, I think, was very beneficial. I've been forever grateful for that.

John Cornely: Well Harvey, we certainly appreciate your time. This is a valuable contribution to the history of the Fish and Wildlife Service and Northern Prairie Wildlife Research Center. I intend to continue to interview some other folks, Dave Carver is on my list, has agreed to do an interview. But we would appreciate any effort that you want to make in making some lists, chronological lists of folks, any of that is helpful in our history projects.

Thanks again for taking the time today, you know, it's one of the greatest places to do an interview, sitting out here. The only problem is that the fish haven't taken off with the bait while we were doing this, so we're going to stop now and go fishing!

Addition later in the tape:

Harvey Nelson: *Tell me when I'm ready.*

As usual, in doing any kind of an interview of this type, it's so easy to overlook certain important people that were involved early on.

In retrospect, I should have mentioned folks that joined the program early, like Ray Murdy, from South Dakota. He started the scaup research program out of Yellowknife, in the Northwest Territories prior to his death.

That project was taken over by Dave Trauger, who worked out of the Yellowknife Field Station for a number of years before taken on other assignments within the Fish and Wildlife Service, including eventually the director of the Patuxent Wildlife Research Center and now with the faculty at Virginia Tech.

Steve Wilds was a graduate student at Northern Prairie, now one of the regional migratory bird coordinators in Minneapolis.

Ken Higgins did his graduate work there, and later became associated with the Fish and Wildlife Coop Unit at South Dakota State University, and just retired from that.

Tom Dwyer was a graduate student, later worked for the Migratory Bird Management Office service and then later Duck Unlimited.

Phil Arnold... Mike Johnson, who became the waterfowl biologist in North Dakota.

Carl Madsen, who continued to work for the Fish and Wildlife Service in latter years, until his retirement, and played an important role in working with private lands.

Bob Bromley, from the Northwest Territories, worked on the scaup project for a number of years with Dave Trauger, and later became one of the migratory bird/waterfowl specialist with the Northwest Territorial Government.

Then, on the maintenance side, we hired folks like Howard Thornsberry as a maintenance supervisor. Howard came out of the Swan Lake Refuge in Missouri, he was one of the inventors of the cannon nut trap item --- the cannon nut trap that was used to trap ducks and geese for many, many years and still is.

Harrison Clark, born and raised in the Woodworth area, he became the maintenance supervisor for the Woodworth Station.

Carl Struts, a resident of Jamestown, also experienced in administrative activities with the North Dakota Grain Company, served as our administrator officer for a number of years.

So there are just a number of people like this that I don't want to overlook, I just wanted to add to the end here John.

John Cornely: Okay, thanks Harvey.